

CCASE:
MSHA V. MONTEREY COAL
DDATE:
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FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION
1730 K STREET NW, 6TH FLOOR
WASHINGTON, D.C. 20006
June 13, 1983

SECRETARY OF LABOR,
MINE SAFETY AND HEALTH
ADMINISTRATION (MSHA)
Docket Nos. LAKE 80-413-R
v. LAKE 81-59

MONTEREY COAL COMPANY

DECISION

These proceedings arise under the Federal Mine Safety and Health Act of 1977, 30 U.S.C. 801 et seq. (1976 and Supp. V 1981). The administrative law judge found that Monterey Coal Company did not violate 30 C.F.R. 77.216(d). 1/ We granted the Secretary of Labor's petition for discretionary review and heard oral argument. For the reasons that follow, we reverse the judge's decision.

On September 11, 1980, a Mine Safety and Health Administration (MSHA) 2/ inspector issued a citation to Monterey alleging a violation of 30 C.F.R. 77.216(d). The citation stated:

1/ 30 C.F.R. 77.216 provides in part:

(a) Plans for the design, construction, and maintenance of structures which impound water, sediment, or slurry shall be required if such an existing or proposed impounding structure can:

- (1) Impound water, sediment, or slurry to an elevation of five feet or more above the upstream toe of the structure and can have a storage volume of 20 acre-feet or more; or
- (2) Impound water, sediment, or slurry to an elevation

of 20 feet or more above the upstream toe of the structure; or

(3) As determined by the District Manager, present a hazard to coal miners.

* * * * *

(d) The design, construction, and maintenance of all water, sediment, or slurry impoundments and impounding structures which meet the requirements of paragraph (a) of this section shall be implemented in accordance with the plan approved by the District Manager.

2/ MSHA succeeded to the enforcement activities of the former Mining Safety and Enforcement Administration (MESA). In this decision references will be to MSHA.

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No. 3 slurry and refuse area, impoundment I.D. No. 1211 IL 0726-04 can impound water and/or slurry to an elevation of over 85 above the upstream [toe] of the impounding structure and the water/slurry storage volume is slightly more than 1000 acre feet. Either one of these conditions place the impounding structure in the large size classification. The mine operator has not submitted hydrologic and hydraulic engineering data to support the design of a large size structure. The approval of the engineering plan for design, construction, and maintenance of No. 3 slurry and refuse area was withdrawn in notifications dated June 13 and July 3, 1980. In a letter dated July 29, 1980 additional time was permitted to submit the information for a large structure. As of the date of this action no data has been received.

The citation culminated a protracted and confusing dispute between MSHA and Monterey concerning the impoundment. At the heart of this dispute is the proper "size" and "design storm" classifications for the No. 3 impoundment. A design storm is the worst combination of forces and loads a structure is calculated to sustain without failure. The cited standard requires implementation of "impoundment plans" approved by MSHA's District Manager. The minimum requirements for impoundment plans are contained in 30 C.F.R. 77.216-2. Although the standards refer to an impoundment's "design storm," they do not specify criteria for choosing an appropriate design storm. Accordingly, both MSHA and the industry use as a guideline the Engineering and Design Manual: Coal Refuse Disposal Facilities, prepared by E. D'Appolonia Consulting Engineers, Inc. (hereafter "Design Manual" or "Manual"). 3/

Table 6.6 of the Manual presents recommended minimum design storm criteria for long term refuse disposal impoundment structures. The Table combines a "size classification" and "hazard potential classification" of an impoundment to reach a "recommended design storm." 4/ Three design storms are set forth in Table 6.6: (1) probable maximum precipitation (PMP) that could conceivably ever occur, given maximized intensity and duration possibilities (this is the most conservative design storm); (2) B PMP, and (3) one percent probability (OPP), the storm which would occur or be

3/ The Design Manual was commissioned and published by MESA following the Buffalo Creek impoundment failure which occurred in 1972.

4/ The hazard potential classification concerns both the level of damage and potential loss of life in the event of the impoundment's

failure. The parties stipulated that the No. 3 impoundment is "low hazard." In addition to size and hazard potential, additional criteria for determining design storms include "freeboard," "spillways" and "decants." Freeboard is the vertical distance between the water level and the crest of the dam or impoundment. A spillway is a passage (for example: a paved channel) designed to accommodate surplus water over or around a dam or impoundment. A decant system is a system of pipes used to discharge clarified surface water from all impoundments after the fine refuse has settled, and to discharge storm runoff periodically collected in an impoundment during large rainstorms.

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exceeded on an average of once every one hundred years and therefore has an OPP of being equalled or exceeded in a given year. 5/

Table 6.6 recommends that an intermediate impoundment of low hazard have a minimum design storm of OPP. A large impoundment of low hazard should have a design storm of B PMP.

With this background, we turn to the specific facts of the case. On July 30, 1976, after Monterey submitted its plan for the No. 3 impoundment, MSHA requested "a written justification of the selection of a design storm less than the PMP. Adequate justification could be the use of Table 6.6 ..." On October 6, 1976, Monterey forwarded the requested information including its own response to MSHA's comments as well as a response by Hanson Engineers, an independent consulting firm. 6/ On January 17, 1977, MSHA wrote to Monterey stating that Monterey's justification of a design storm less than the PMP was "satisfactory". Monterey's plan was approved by MSHA on July 6, 1977.

Subsequent to the plan's approval in 1977, the No. 3 impoundment manifested numerous signs of stress. A clay covering on the outside of the structure had been improperly applied, elevating the phreatic surface (water table) and weakening the impoundment structure. In addition, the impoundment had experienced two instances of serious slippage. Boils appeared on the impoundment indicating internal pressure was forcing water through the structure. 7/ Further, the static safety factor computed for purposes of determining slope stability measured less than the minimum permissible reading of 1.5. 8/

As a result of the first slippage, Monterey submitted a plan for remedial construction prepared by Hanson Engineers. The plan included the installation of 14 piezometers to monitor the seepage of water from the impoundment and to measure slope stability. Also as a result of the slippages, MSHA Inspector Eslinger began making more frequent inspections of the No. 3 impoundment. He made an inspection in April, 1980, at which time he collected the piezometer readings, reviewed them and forwarded them to MSHA's "Technical Support" Center for analysis. 9/ There, a major reevaluation of

5/ MSHA assigns either a B PMP or OPP design storm only after examination of the circumstances and receipt from the operator of detailed information justifying the use of a less conservative design storm.

6/ Hanson Engineers has provided Monterey with engineering advice and data on the impoundment since 1975.

7/ "A boil is a seep which ... [is] water escaping the dam in a

localized area under a high exit gradient, there is a lot of pressure forcing this water out." Mazzei deposition at 28. The record in this case includes the depositions of five MSHA experts. Hereafter, the depositions will be cited by the deponent's name and the page number of the deposition.

8/ 30 C.F.R. 77.216-2(a)(13) requires inclusion in the impoundment plan of a "factor of safety range for the slope stability." The safety factor is the ratio of the resisting forces to the forces tending to cause movement. See 30 C.F.R. 77.217(f). MSHA Engineer Eslinger testified that MSHA "like[s] to see at least [a] 1.5 static safety factor." Eslinger at 17.

9/ Pittsburgh Technical Support Center, Division of Safety and Technology, Mine Waste and Geotechnical Engineering Branch.

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the design plan was initiated and MSHA personnel discovered that they had overlooked a "discrepancy,' 10/ "The discrepancy in this instance was [that] an improper design storm was used. The Engineering and Design Manual, Table 6.6, requires a B PMP design storm be used for a structure of this size, rather than the OPP" Joint Exh. 1 (MSHA letter to Monterey, June 13, 1980). MSHA requested further data within 20 days. Monterey responded by forwarding copies of the 1976-1977 correspondence (summarized supra) and stating, "[W]e feel that you will agree that the use of the OPP design storm has already been discussed, justified and approved, and is not an item which you had 'overlooked'."

On July 3, 1980, again MSHA wrote to Monterey:

The justification cannot be accepted, and therefore, approval of the plan is withdrawn effective immediately ... Table 6.6 ... recommends that for Slurry and Refuse Disposal Area No. 3, a large impoundment of low hazard, that minimum design storm acceptable is the B PMP ... we must adhere to these recommendations.

Joint Exh. 3. Monterey responded by letter to MSHA on July 21, 1980:

Based on Table 6.6, ... this impoundment should be classified as an intermediate size impoundment of low hazard potential. This is because the maximum volume of stored water during a design storm will always be less than 1000 acre feet, and the maximum depth of water during a design storm will always be less than 40 feet. It is true that the total impoundment volume is slightly more than 1000 acre feet and the total impoundment height is greater than 40 feet; however, the large portion of this volume and height is, and always will be, occupied by settled fine refuse, leaving a maximum of 405 acre feet of water storage and a maximum of 21 feet of water depth. The inclusion of only water, and not settled fine refuse, in the storage and depth quantities above is supported on page 6.63 of the manual in the section entitled Impoundment Size Classification, which makes a very clear distinction between stored water and settled fine refuse.

Joint Exh. 4.

10/ Apparently MSHA Technical Support advised the MSHA District quarters by memorandum dated June 6, 1980 of its finding of an error in the design storm. See Rath at 13-14. There is also an implication in the record that there was communication between MSHA and Monterey prior to the letter of June 13, 1980 revoking the plan. Childers at 30-32.

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By letter dated July 29, 1980, MSHA stated that no mandatory standard required it to use Table 6.6. In addition, MSHA noted "it is obvious that section 77.216 ... requires design plans not only for water, but also for sediment and slurry impoundments that fall within the criteria. Therefore, where a combination of both refuse and water is trapped behind a structure, it becomes clear that the total volume would be considered if prudent engineering and design is conducted." MSHA gave Monterey until August 12, 1980 to submit the data initially requested on June 13, 1980. On August 7, 1980, at the request of Monterey, a meeting between MSHA officials and Monterey was held at MSHA's District Eight headquarters. The parties unsuccessfully tried to reach an agreement. 11/ On September 3, 1980, Monterey again wrote to MSHA stating that "Monterey and MSHA apparently cannot reach a satisfactory accord." Monterey reiterated the facts and concluded:

To Monterey, MSHA's July 29, 1980, letter is interpreted to mean that MSHA agrees with Monterey's contention that the design is consistent with the Engineering and Design Manual, but that MSHA is not bound by the Manual. This MSHA position on the Manual would certainly seem to contradict the July 13, 1980, [sic] position that the alleged discrepancy was based on the requirements as set forth in the Manual.

Thus, Monterey considered the MSHA approval of area No. 3 "to still be in effect." Joint Exh. 7, at 2-3.

On September 11, 1980, the citation for failure to have an approved plan in effect was issued by MSHA. Monterey contested the citation and the Secretary subsequently instituted a civil penalty proceeding for the alleged violation. 12/

In his decision vacating the citation, the judge framed the issue before him as "whether MSHA was justified in withdrawing its approval, because if not, its subsequent action of issuing a citation was improper." 3 FMSHRC at 1788. The judge resolved the issue in Monterey's favor, stating that "Table 6.6, which MSHA relies on and which it charged Monterey with violating, counts only the water above the settled material in determining the size of a pond for design storm purposes." 3 FMSHRC at 1789. Presumably because under the literal terms of Table 6.6 the impoundment was correctly classified as "intermediate", the judge found that withdrawal of approval was not justified. Therefore, he vacated the citation.

11/ There were also a number of telephone conversations between Mr. Tillman of Monterey and various MSHA officials in an attempt to reach an agreement. See Childers at 24-28 and 47-48.

12/ On September 17, 1980, Monterey submitted additional information to MSHA "to allow Monterey to continue to operate" the No. 3 slurry area. Joint Exh. 8. MSHA reinstated approval of the plan on September 19, 1980 after Monterey submitted the requested data. Joint Exh. 9.

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We concur with the judge's statement of the issue: whether MSHA was justified in withdrawing its approval of the plan, and, therefore, whether issuance of the citation for failure to have an approved plan in effect was proper. We disagree with the judge's conclusion, however, and hold that under the circumstances MSHA was justified in withdrawing the plan approval and issuing the citation.

As noted previously, a re-evaluation of Monterey's impoundment was conducted and MSHA discovered that the wrong design storm (the OPP) had been approved. 13/ MSHA admits that the OPP design storm should not have been approved and that if the same plan presently were submitted, it would not be approved. The depositions contain two explanations for the error. During the time when Monterey initially submitted its plan, MSHA was deluged with plan submissions because the standard requiring plans for impoundments had only recently gone into effect. Mazzei at 58-59. In addition, the record reflects that Monterey's plan submissions may have been somewhat confusing themselves in that they referred to more than one design storm. 14/

13/ Actually, the wrong design storm had been approved twice: initially in July 1977, and upon approval of a modified plan in August 1979.

14/ On April 30 1976, Monterey submitted a number of documents to MSHA. Included was an Engineering Report for Continued Use of Refuse, Slurry Area No. 3." Pages 4-5 of that report describe runoff and freeboard calculations. They use both PMP and OPP calculations. The "spillway" paragraph on page 5 of the report only refers to OPP precipitation. Later, on July 30, 1976, MSHA requested "a written justification of a selection of a design storm less than the PMP." On October 6, 1976, Monterey responded to MSHA's request by forwarding both Monterey's and Hanson's responses. Inspector Eslinger quoted part of Monterey's response: "According to Table 6.6(c) of the MESA Engineering and Design Manual, ... the decant system of a large impoundment in a low hazard area--large impoundment, low hazard, must handle ninety percent of the half PMP for the area." He continued, "so, ... they're [Monterey] saying that it is a large impoundment of low hazard." Eslinger at 30-31. Counsel for the Secretary offered the following explanation of the confusion:

... [MSHA received] a cover letter from Monterey indicating that the one half PMP should be used and referred to data contained in the attached report from Hanson Engineers. The Hanson document that is attached talks in terms of the OPP

rather than the one half PMP.

Childers at 43. See Eslinger at 30-34; Childers at 41-44; Mazzei at 60 and 77; and Wu at 14. Thus, although the record before us does not contain all the various documents referred to, we believe that it is nevertheless clear from the record that some of the confusion may have been caused by Monterey's submissions.

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Regardless of the precise cause of the mistaken approval, however, we find that it was a good faith mistake. Insofar as this record establishes, MSHA's consistent practice in classifying the size of impoundments is to measure the height and volume of stored water and slurry. Based on this practice, the No. 3 impoundment should have been classified as "large" with "low hazard" requiring a B PMP design storm. However, the impoundment was approved using the less conservative OPP design storm, apparently because only the volume of stored water, and not slurry, had been taken into account. In *Penn Allegh Coal Company*, 3 FMSHRC 2767 (Dec. 1981), we addressed the effect of a mistaken approval of a provision in a dust-control plan. We held that a good-faith mistake in a plan approval may be repudiated. 3 FMSHRC at 2770. Thus, we hold that MSHA was not bound by its mistaken approval of the wrong design storm.

We further find that MSHA was justified in withdrawing approval of the plan based on its concern over the safety of the impoundment. We base this finding on the purpose of 30 C.F.R. 77.216; the fact that No. 3 impoundment showed numerous signs of stress; and the conclusion that MSHA's purpose in correcting the design storm error was to increase the safety of the impoundment. We first address the purpose of the standard.

We acknowledge that the literal wording of the citation and the relevant correspondence between MSHA and Monterey do not explicitly state that withdrawal of the plan was based on safety considerations. Rather, Monterey was cited for not having an approved plan in effect and the correspondence between the parties focuses on the dispute about the size of the impoundment and the appropriate design storm. In resolving this dispute, the judge limited his inquiry to the size of the impoundment under a literal application of Table 6.6. We conclude, however, that this classification controversy has unfortunately clouded and distracted attention from the basic purpose of the standard and the real issue in this case, i.e., whether MSHA had proper cause to revoke its previous approval of the impoundment plan.

In explaining the purpose of 30 C.F.R. 77.216, the Secretary states:

MSHA interprets 30 C.F.R. 77.216 to require submission of plans for the design, construction, and maintenance of structures which impound water, sediment, or slurry. Such plans must provide for effective containment of potentially hazardous amounts of refuse.

Sec. Br. at 20-21 (emphasis in original). District Manager Childers described the approval process after an impoundment plan is received. He testified that his "primary concern" and the "bottom line" in approving plans is safety. Childers at 38-39. The Secretary further states:

MSHA analyzes plans for the development of impoundments in light of both the resistance of the retaining structure to failure and the likely results given structural failure.

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PDR at 3. To emphasize our central observation, we conclude that the purpose of the standard is to assure the safety of impoundments and minimize the risk and effect of failure.

In their depositions, four of MSHA's experts testified at length concerning the history of various safety problems at the impoundment. 15/ The first apparent problem was in the construction of the impoundment. The dam is constructed of a coarse refuse material covered by clay. The clay covering was intended to be thin but was applied thickly. Stress was experienced in the impoundment because the clay would not let the water through the structure which in turn raised the phreatic surface (i.e., water table). Also, as noted earlier, the impoundment experienced two instances of serious slippage, first on the south slope in 1978 and then on the west slope in 1979. In addition, Inspector Eslinger observed boils occurring in the area of the most recent slide. Boils were described as problems, an indication of weakness, and a sign of distress. 16/ In addition to these difficulties the static safety factor (for slope stability) measured less than the minimum permissible reading of 1.5. Based on the piezometer readings, MSHA found safety factors ranging from just under 1 to 1.3. Inspector Eslinger testified that the impoundment "has always been a borderline on slope stability." 17/ We conclude these safety related problems are sufficient to justify MSHA's action in withdrawing the plan approval.

We further find that MSHA's purpose in correcting the design storm error was to increase the safety of the impoundment. Inspector Eslinger acknowledged that the reason for issuing the citation was that MSHA was interested in altering the operational parameters of the pond:

[T]he violation was written and we were seeking to modify the plan to gain this lower operating level which would provide the increased safety for the storage aspect of the storm...

Eslinger at 7-8. Inspector Eslinger further testified that the impoundment was safer with less water in it. Id at 13. In addition, Mr. Mazzei testified that "if you lower the water level, you're going to lower the intensity of the boils." Mazzei at 29. Thus, MSHA's experts believed that changing the design storm and lowering the water level result in the increased safety of the impoundment.

We also note that two of MSHA's experts testified that had MSHA not corrected the design storm, MSHA would have required Monterey to

take other action to increase slope stability. Mr. Eslinger was asked what

15/ Eslinger at 14, 16, 36 and 40-42; Rath at 5-6 and 8-9; Mazzei at 7, 27-28, 32, 72, and 74-76; and Wu at 15 and 22.

16/ Mazzei at 28; Rath at 8; Eslinger at 14; and Wu at 22.

17/ Eslinger at 16-17.

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MSHA would have done to increase slope stability if MSHA had not found the design storm error. He replied, "we probably would have requested [Monterey] to do something which may have meant lowering the operational level to insure a minimum [slope stability] of 1.5." Eslinger at 35-36. Also, Mr. Mazzei acknowledged that if the OPP design storm were to remain in effect work would have to be done on the impoundment from a stability standpoint. Mazzei at 74. This testimony supports a finding that MSHA's overall concern was the safety of the impoundment. Thus, we find that MSHA withdrew its plan approval and ultimately issued the citation requiring data to support a more conservative design storm because of valid safety concerns.

We further find that Monterey suffered no legal prejudice as a result of MSHA's actions. In its brief Monterey argues:

The essence of Monterey's grievance and the core of the decision below is that MSHA acted arbitrarily and unreasonably by requiring Monterey to comply with Table 6.6 and then punishing it for doing just that.

Br. at 7. During oral argument, counsel for Monterey stated:

It [MSHA] had the right not to use Table 6.6 or to develop a new standard based on Table 6.6 but taking a different approach. But it didn't do that, at least it didn't tell the world about it if it did.

Oral arg. tr. at 20. At first glance, Monterey's position might appear to have merit. During the submission of the initial plan in 1976 and 1977, Monterey was told to use Table 6.6. Later, in the letters of June 13, and July 3, 1980, MSHA itself relies on the Table as justification for withdrawing the plan approval. MSHA then stated in its letter of July 29, 1980, that it is not required to use the manual and relied on 30 C.F.R. 77.216 to support its action.

However, insofar as the record in this case reflects, except for the mistake made in the present case, MSHA was consistently interpreting Table 6.6 the same way; there was no change in MSHA's policy or position. All five MSHA witnesses stated that they interpreted Table 6.6 to refer to water plus slurry. 18/ Therefore, in their view, the No. 3 impoundment was always large in size and always required a B PMP design storm.

18/ Eslinger at 29; Childers at.33; Rath at 17; Mazzei at 54 and Wu

at 20. MSHA's consideration of the total volume of stored water and slurry in classifying the size of an impoundment is based on its documented engineering judgment that, due to the extremely fluid nature of the settled and suspended coal fines, this material, as well as the water, would mobilize and flow in the event of an impoundment failure. Mazzei at 22-23, 50-55; Wu at 16-17; Sec. Br. at 25-8.

We cannot conclude that MSHA's use of the Table or its act of withdrawing the plan approval was arbitrary and capricious. MSHA is not bound by the literal terms of Table 6.6. It is a guideline, not a mandatory standard. Cf King Knob Coal Co., 3 FMSHRC 1417, 1420 (June 1981); Alabama By-Products Corp., 4 FMSHRC 2128 (Dec. 1982). Also, of great importance here, Monterey had adequate notice before issuance of the citation of how MSHA intended to apply the Table to its operation and the remedial action that would be required. 19/ Monterey was also given a reasonable time to comply. MSHA's initial action was a letter, not a citation and it allowed 20 days to submit the data. In MSHA's letter of July 29th the time for submission of the data was extended until August 12, 1980 "because of the delays created by correspondence on this matter." Even then, the citation, issued September 11, 1980, was preceded by a meeting and telephone conversations. Thus, prior to issuance of the citation Monterey was given unequivocal notice of and a reasonable opportunity to comply with MSHA's interpretation and use of the Table. Cf Penn Allegh Coal Co., supra. 20/ In sum, we find the course of action taken by MSHA to have been a reasonable approach, and not arbitrary or capricious.

19/ Penn Allegh also describes the actions Monterey has taken:

The requirement of good faith negotiations by both parties eliminates any fear that an operator must forever labor under a provision that has been adopted and approved. If an operator believes a revision is warranted, has engaged in a reasonable period of good faith negotiation, and believes the Secretary has acted in bad faith in refusing to approve the revision, he can obtain review of the Secretary's action by refusing to comply with the disputed provision, thus triggering litigation before the Commission.

3 FMSHRC at 2773, n.8.

20/ In fact, Monterey was not required to lower the actual water elevation then present in the impoundment. At the time the citation was issued the facility was operating at about 660 feet. Stipulation No. 18. Utilizing an OPP design storm, it could operate at up to 662 feet. Utilizing the B PMP design storm, it could only operate at an elevation of 660.5 feet.

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Accordingly, the decision of the judge is reversed, the citation for failure to have an approved plan in effect affirmed, and the case is remanded for the imposition of an appropriate civil penalty.

Collyer, Chairman and Backley, Commissioner, dissenting:

We dissent. The record in this case shows that MSHA did not withdraw approval of Monterey's plan for the design of its impoundment because of concerns about the stability of the structure. Approval of the plan was withdrawn solely because of a dispute between MSHA and Monterey over the correct meaning of the guidelines contained in Table 6.6 of the Design Manual.

MSHA's interpretation was wrong and the citation should be vacated. Any attempt to label this interpretation a "good faith mistake" fails because of MSHA's actions in the dispute, as outlined below. Under proper circumstances, MSHA may not necessarily be bound to the guidelines in Table 6.6. However, when it relies on specified guidelines for issuing a citation, as here, it is bound by the terms of those guidelines alleged to have been violated.

In order to properly understand the basis for this controversy, the genesis and purpose of Table 6.6 should be explained. Table 6.6 is only one section of a major effort on the part of the government to set standards for the design and maintenance of coal impoundments and handling of coal waste after the Buffalo Creek disaster in 1972. The Mining Enforcement and Safety Administration (MESA), MSHA's predecessor, contracted with E. D'Appolonia Consulting Engineers to develop a design manual to provide guidance to inspectors and industry alike. The result was published under the title: "U.S. Department of Interior, Mining Enforcement and Safety Administration, Engineering and Design Manual-Coal Refuse Disposal Facilities." As the correspondence in this case illustrates, the Manual has been used since publication as the official parameter against which all impoundments are measured.

Table 6.6 in the Design Manual is what MSHA uses to determine the "size", "hazard potential", and "design storm" for coal refuse impoundment structures. 21/ Although other textbooks and references are also consulted by MSHA in reviewing impoundment plans, none of these other references is used to determine the size, hazard potential or design storm for impoundments. 22/ Thus, the "size" classification, which is at the heart of the dispute in this case, is entirely the creation of the authors of Table 6.6 and that table is the only source that is used by MSHA to make such "size" classifications for coal refuse impoundments.

The nature of Table 6.6 also needs a fuller explanation than is provided in the majority opinion. Table 6.6 is arranged like a

matrix. The proper design storm for an impoundment is determined by matching the "size" variable with the "hazard potential" variable for each facility. There are three size classifications: small, intermediate, and large. These classifications are based on the maximum volume and depth of stored water. There are also three hazard potential classifications: low, moderate, and high. The hazard potential classifications are based on the severity of damage that would occur if an impoundment failed.

21/ Mazzei at 16-17.

22/ Mazzei at 15 17.

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It is undisputed that Monterey's No. 3 impoundment has a "low" hazard potential. 23/ For a facility with a "low" hazard potential like the No. 3, the One Percent Probability (OPP) is the appropriate design storm if the impoundment is "intermediate" in size. If it is "large" in size, the design storm should be one-half Probable Maximum Precipitation (1/2 PMP).

As the majority points out, Monterey by letter dated July 30, 1976, was requested to submit a justification of the selection of the OPP design storm for its No. 3 impoundment. In this letter, MESA stated, "Adequate justification could be the use of Table 6.6." Monterey submitted the requested material and its plan for an "intermediate" impoundment was approved on July 6, 1977. In July of 1980, MSHA withdrew its approval and in September of that year issued the citation that gave rise to this proceeding. The basis for the citation was Monterey's failure to have an engineering plan for a "large" size impoundment.

The dispute between MSHA and Monterey centers on whether the size classifications contained in Table 6.6 are based on the total volume and depth of stored water or on water plus settled solids or slurry. If water only is counted, both parties acknowledge that the impoundment is intermediate in size and the OPP is the appropriate design storm. If water plus slurry is counted, the impoundment becomes large in size under Table 6.6 and the design storm should be 1/2 PMP.

The record plainly shows that the size classifications in the Table are based on water only. On page 6.3 of the Table, it is explained that the size classifications are based on water "above any settled material." The explanation of Table 6.6 continues with the statement that:

... These volumes and height limitations represent conservative values compared to those typically specified for water impoundments.... However, coal refuse impoundments often contain settled fine refuse in addition to water, which could contribute significantly to downstream damage in the event of an embankment failure.... These limits reflect a conservative approach to account for possible added damage due to settled slurry.

Table 6.6 at 6.63 and 6.64. Joint Exhibit 6.

This language means two things: first that the "size", classifications in the Table are based on water only; and second, that the authors took into consideration the potential damage of water plus

23/ The description in the Table of an impoundment with low hazard potential is: "Facilities located in rural or agricultural areas where failure would cause only slight damage, such as farm buildings, forest or agricultural land, or minor roads."

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slurry in drafting the size portion of the Table. It shows that the authors of the Table took into account the differences between water and slurry in developing the design storm criteria for impoundments and deliberately based the size classifications on water only by using conservative figures.

That the authors of the Table intended to base their formulation on water only is confirmed by the principal editor of the Manual who was "directly involved in the development of Table 6.6." The testimony of Mr. Richard D. Ellison, the principal editor of the Manual and Executive Vice President of D'Appolonia Consulting Engineers, introduced by both parties in Joint Exhibit 10, reads:

... these dimensions relate to the water above any settled solids, and do not include the depth and volume of settled solids. This differentiation between water and settled solids was understood and considered at the time that Table 6.6 was being developed. Accordingly, the discussion about how to use Part A of the Table, on Pages 6.63 and 6.64 of the Manual, makes specific reference to the fact that only the water should be considered.

Thus it cannot be disputed that the Table applies to water only and that it was designed to apply to water only. In fact, MSHA's expert witness, Dr. Wu, Chief, Mine Waste and Geotechnical Engineering Division, Bruceton Safety Technological Center, Bruceton, Pennsylvania, admitted that the Table applies to water only. Wu at 16-17. We emphasize this point not only because the majority minimizes it but because it is necessary in a review of MSHA's actions. The majority suggests that the judge was being overly "literal" in applying the Table. The judge, however, interpreted the Table as it is written and as it was intended to be interpreted. The Table must be "modified" to apply to water plus slurry.

The reinterpretation of the Table in this fashion is illogical and tortuous. Table 6.6 is an engineering formula, not some phrase in a statute or regulation susceptible to various interpretations. One cannot take the formula, alter the definition of one of its terms, and then proceed to use it as if the formula retained any rational validity. Perhaps the judge put it best:

[MSHA] cannot ... successfully charge an operator for the violation of the handbook's Table 6.6

and at the same time ignore the definitions of the terms used in that Table. The formula for deriving the circumference of a circle is only valid if "R" equals the radius, and "Pi" equals approximately 3.1414. A change in the meaning of any of the terms destroys the effectiveness of the formula and the same is true of Table 6.6.

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The decision of the majority sanctions this illogical reinterpretation of the Table. No attempt is even made to provide a scientific or technical justification for modifying the specifications contained in the Table. This omission is not surprising because MSHA has advanced no engineering reason to explain why slurry should be counted when using this Table. In fact two MSHA officials thought they were correctly interpreting the Table as written. In this regard, Charles Rath, MSHA's Supervisory Coal Mine Technical Specialist and author of the letter revoking approval of the plan responded as follows:

Question: What if you were to learn that we were right, that Monterey Coal Company has correctly interpreted how one makes these calculations to determine the size of the pond, would you recommend approval of the plan you disapproved in June. In other words, would you withdraw.

Rath: Certainly if it could be proved that the interpretation is incorrect, that that wasn't the intent of the engineering parameters or whatever, why, certainly I wouldn't have any reservations about that.

Rath at 22. (See also, Rath at 20, 28-29; Eslinger at 21-23.)

Two other MSHA engineers said that they thought that the authors of the Table made a "mistake," but they provided no reason for that belief. 24/ The confusion on the part of MSHA's expert witnesses is not surprising given the fact that the slurry is already accounted for by the use of conservative numbers. Essentially, MSHA's present position "counts" the slurry and settled materials twice.

24/ The MSHA engineers surmised that a "mistake" was made because the authors of the Table drew on the experience of the Corps of Engineers and the Bureau of Reclamation, agencies that are in the business of building structures that retain water only. Wu at 16-17; Mazzei at 12-14.

The belief that the authors of the Table did not take into account the difference between coal refuse impoundments and impoundments that retain only water is refuted by the language of the Table itself. The explanatory material on size classification in the Table says: "These volume and height limitations represent conservative values compared to those typically specified for water impoundments..." Table 6.6 at 6.63. In addition, Mr. Ellison, the

principle editor of the Manual, unequivocally stated that the difference between water and settled solids was understood and considered when the Table was developed.

Thus even the unfounded suppositions offered by MSHA to explain why slurry should be counted do not appear to be accurate. If the Table does not represent prudent engineering, it should be changed in its entirety and not modified arbitrarily because of unfounded guesses.

~1025

Despite this, the majority finds that MSHA was justified in withdrawing approval of plan. The majority gives three principal reasons for upholding MSHA action in this case: (1) withdrawal of the plan was prompted by legitimate concerns over the stability of the structure; (2) MSHA has consistently interpreted Table 6.6 to include water plus slurry; (3) Table 6.6 is not a mandatory standard and MSHA is not bound by its literal terms. None of these rationales stands up under scrutiny.

First, the assertion that MSHA's concerns about the stability of the dam prompted withdrawal of the plan is simply not supported in any fashion by the record. The dam had developed surface indications of possible stress -- the boils and slippage so emphasized by the majority. In response to these indications, MSHA had only recommended that the structure be closely monitored. Obviously, these signs of possible stress did not mean the dam was unstable, only that it bore watching. With the agreement of MSHA, Monterey had installed peizometers to monitor the dam in order to determine whether any corrective action were needed. The only relationship the monitoring project had to the citation was that the supposed "discrepancy" in approving an OPP design storm in 1977 was discovered while the plan was being reviewed in connection with the monitoring. 25/

Both the citation and the correspondence between the parties show that approval of Monterey's plan was withdrawn solely because MSHA believed that Table 6.6 dictated a 1/2 PMP design storm for this impoundment. Not only did the initial MSHA withdrawal letter state that its action was based upon the fact that "Table 6.6 requires a 1/2 PMP design storm to be used for a structure of this size" (Joint Exh. 1), but a subsequent response to Monterey's defense of the plan was even more to the point:

Table 6.6 ... recommends that for ... a large impoundment of low hazard, minimum design storm acceptable is the 1/2 PMP, 1/2 the Probable Maximum Precipitation. We must adhere to these recommendations.

Joint Exh. 3. Neither the citation nor subsequent correspondence ever mentioned safety considerations as a basis for withdrawal of the plan. 26/

25/ See Joint Exh. 1; Eslinger at 4-8, 16-21; Rath at 8-12.

26/ Even if it were true that safety considerations prompted

revocation of the plan, MSHA's withdrawal of plan approval would be legally defective for its very failure to state the true reason. The Commission, like a reviewing court, "must judge the propriety of such action solely by the grounds invoked by the agency. If those grounds are inadequate or improper, the Court is powerless to affirm the administrative action ..." Secretary v. Chenery Corp., 332 U.S. 194, 196 (1947). See also Burlington Truck Lines, 371 U.S. 156, 169 (1962)(the law requires "an agency's discretionary order be upheld if at all, on the same basis articulated in the order by the agency.")

~1026

But there is an even greater problem with the majority's conclusion that safety considerations prompted revocation of the plan. The MSHA officials involved in this case have repeatedly disavowed the suggestion that safety concerns were the basis for their action. Charles Rath, the author of the letter revoking approval of the plan, denied that revocation of the plan was related to concerns about stability. 27/ The man who issued the citation, Charles Eslinger, a mining engineer who specializes in impoundments, was also emphatic that the design storm "error" was the only reason for revocation of the plan. He confirmed Rath's statement that MSHA did not require lowering the level of the pond because of stability problems. Eslinger said that "we would not at this time do anything about the stability aspect" except to closely monitor the facility. 28/

27/ The following exchange during Rath's deposition shows this:

Question: ... [was] the withdrawal of the plan's approval because of the design storm error as we discussed another way to get at a concern with the stability of the dam?

Rath: No, not at all. (Rath at 39 40).

28/ Here is what Eslinger said during his deposition:

Question: When the plan approval was withdrawn in June, it was withdrawn because of a design storm error, is that correct.

Eslinger: Right. That's the only consideration.

Question: But the approval was only withdrawn for this reason? It wasn't withdrawn because of the phreatic level consideration, is that correct?

Eslinger: No, at this time we felt that we were only going to address the problem of the wrong design storm. We did not require that it be lowered because of the stability. We felt that at sometime in the future maybe we would have to do that.

Question: But you would continue to monitor closely?

Eslinger: Continue to monitor, inspect. They're required by

regulations to make a reading of those piezometers once every seven days and we can request them for that information. And we felt that we would not at this time do anything about the stability aspect, although this in itself would probably help the stability analysis because you're lowering the water level a foot and a half. But that was not ... it was just based on the design storm, that was the only consideration.

Eslinger at 21-23. See also, Mazzei at 36.

~1027

On this record, the judge quite rightly found that MSHA did not revoke approval of the plan because the impoundment was unsafe. To overturn that finding, the majority has had to skirt direct testimony that the citation was issued solely because MSHA incorrectly believed that the wrong design storm was used. The majority has also completely ignored the fact that the MSHA officials who issued the citation repeatedly and consistently denied that stability problems prompted their action.

We can understand their reasons for taking this path, for to uphold the citation is a formidable task given the evidentiary record developed below. The specter of disaster, as opposed to the evidence which we are statutorily required to review, is conjured up to justify this arbitrary administrative action. The majority engages in the following line of reasoning: the impoundment had shown "signs of stress"; reinterpreting the Table would result in a lower water level; lowering the water level would increase the safety of the structure; therefore, the reasons for disapproving the design storm can be disregarded because safety will be enhanced in any event.

It is irrefutable that the safety of any impoundment is increased when the water level is lowered. Less water means less pressure on the structure. An impoundment that contains nothing is safest of all. The majority marries this less-is-safer notion with the fact that the operation of the dam was being monitored to reach the conclusion that withdrawal of the plan was justified. Repeated references to slippage, boils and instability create the impression that MSHA stepped in to protect the public interest when it withdrew the plan.

The severity of the safety problems at this facility have been exaggerated. MSHA has always considered this impoundment to have a "low hazard potential" on a scale of low, medium, and high. The firm of Hanson Engineers, Inc. which has inspected, conducted remedial construction upon, and closely monitored the No. 3 impoundment since 1975, gave the following assessment of the stability of this structure:

Based upon field observations and the field and laboratory data developed over the years, it is [the] opinion ... of Hanson Engineers, Inc. that the embankment distress experienced at the No. 3 impoundment is basically a surface feature, and that it does not suggest that the mass stability of the embankments has deteriorated. The static and dynamic factors of safety for mass stability

reported by Hanson Engineers, Inc. in March 1979 for a pond elevation of 662.0 (i.e., minimum static factor of safety = 1.7 and a minimum dynamic factor of safety = 1.2 to 1.3) are considered to be reasonable estimates of safety against failure as based upon the standards of practice of the profession and the present state of the art. These factors of safety would not be significantly different for pond levels 1 to 2 ft. higher or lower than elevation 662.0.

~1028

The sworn professional opinion of this firm is that the maintenance of this impoundment at the 662 foot water level, a level consistent with the use of an intermediate size classification, combined with the monitoring program, represents "prudent engineering practice for the continued safe operation of the No. 3 impoundment." Joint Exh. 11.

It was also apparently the opinion of MSHA that this impoundment posed no immediate risk. 29/ If such a risk did exist, MSHA could have and should have issued an imminent danger order. Requiring that the water level be lowered a foot and a half, an action that would have no significant effect on the safety of the structure according to Hanson Engineers, would not have been an adequate corrective measure if this facility posed any real danger.

What we have here is a massive attempt at post hoc rationalization. Put in the vernacular, MSHA clearly goofed. It ordered Monterey to amend its plan to drop the water level a foot and one-half because MSHA believed that the Manual dictated this result. Because the Manual did not dictate that result, as Dr. Wu admitted, safety concerns were seized upon to cloak this mistake. The record shows what MSHA did and why it did it. We cannot ignore the facts and find that safety compelled withdrawal of the plan.

The additional reasons given by the majority for upholding this citation also evaporate when examined. The majority says that MSHA's action should be sanctioned because MSHA has consistently interpreted Table 6.6 to refer to water plus slurry, "insofar as the record in this case reflects." The record in this case does not "reflect" any such evidence to support a "consistent interpretation." The evidence on whether MSHA has consistently interpreted Table 6.6 is scant. It consists only of the statements of MSHA's witnesses made during this litigation that they interpreted Table 6.6 to refer to water plus slurry. Two of those witnesses thought they were correctly interpreting the Table as written. 30/ In this very case, a size classification based on water only was approved when the initial plan was reviewed in 1976-77. No published material to substantiate a consistent agency-wide practice apparently exists. Thus, we do not know that MSHA has always interpreted the Table in this fashion.

29/ Inspector Eslinger stated "There is a degree of hazard associated with an impoundment structure. Just like when you operate a car there is a degree of hazard.... And when you build an impoundment, there is some hazard associated with it." But, said Inspector Eslinger, "I don't see it failing in the near future. I

would think there would have to be serious deterioration of the quality of the structure before it failed." Eslinger at 15; see Rath at 39-40; see also Mazzei at 39-40, 74 (his concerns could be adequately addressed through close monitoring rather than lowering the water level).

30/ Rath at 20, 22, 28-29; Eslinger at 21-23.

~1029

More importantly, even if MSHA has consistently interpreted the Table to refer to water plus slurry, that alone does not warrant according deference to MSHA's interpretation. The majority cites no authority (because there is none) that an agency's interpretation should be deferred to simply because the agency has been consistently mistaken.

Deference is accorded to an agency's interpretation only when the agency's interpretation is reasonable.^{31/} The interpretation advanced by MSHA is wholly unreasonable. Not only is it contrary to the plain meaning of Table 6.6 and the plain intent of engineers who formulated the Table, it is inherently illogical. Moreover, not a shred of evidence has been presented on which we as adjudicators could base a finding that MSHA's interpretation is reasonable. In the face of this, blessing MSHA's interpretation simply for the reason that it may have been consistent has no basis.

Lastly, the majority excuses MSHA's arbitrary action in this case on the grounds that MSHA is not bound by the literal terms of Table 6.6 because it is a guideline, not a mandatory standard. The principle that an agency is not bound by guidelines that have not been promulgated as regulations is inapposite here. MSHA withdrew approval of Monterey's plan for the very reason that Monterey allegedly did not comply with this guideline.

MSHA is not bound to follow the guidelines in Table 6.6. New standards for selecting design storms should be developed if they are needed. But when MSHA does follow Table 6.6 and when it requires Monterey to follow Table 6.6, it must do so rationally and correctly within the terms of the Table. MSHA has broad discretion in regulating coal refuse impoundments through the plan approval process. But that discretion can be abused. We must dissent because such an abuse took place in this case.

^{31/} Lucas Coal Company v. Interior Board of Mine Operation Appeals, 522 F.2d 581, 584 (3rd Cir. 1975).

~1030

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